[CLAIMS]

[Claim 1]

An automatic video summarizer comprising:

an input unit for receiving a video source to be summarized and a desired summarization time from a user:

an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary; and

a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

[Claim 2]

The automatic video summarizer of claim 1, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

[Claim 3]

15

20

The automatic video summarizer of claim 1, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

[Claim 4]

The automatic video summarizer of claim 1, further comprising a shot detection module for extracting the video sources for respective shots.

[Claim 5]

The automatic video summarizer of one of claims 1 to 4, comprising:

an output unit for outputting the generated video summary to a screen; and

a storage unit for storing the generated video summary.

[Claim 6]

5

10

15

The automatic video summarizer of claim 5, wherein the video summary generation module comprises:

a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and

a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user.

[Claim 7]

The automatic video summarizer of claim 6, wherein the shot detection module detects a shot from the video source to be summarized, configures a shot list, and transmits the shot list to the video summarization generation module.

[Claim 8]

An automatic video summarization method comprising:

- 20 (a) receiving a video source to be summarized and a desired summarization time from a user;
 - (b) extracting the video source for each shot;
 - (c) generating importance degrees according to the video's category characteristic and a purpose of desired summary; and

(d) applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

[Claim 9]

5

10

15

20

The automatic video summarization method of claim 8, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

[Claim 10]

The automatic video summarization method of claim 8, wherein the characteristic support vector algorithm is the fuzzy OC-SVM (one-class support vector machine) algorithm.

[Claim 11]

The automatic video summarization method of one of claims 8 to 10, further comprising:

outputting the generated video summary to the screen; and storing the generated video summary.

[Claim 12]

The automatic video summarization method of claim 11, wherein (d) comprises applying the shot information and the importance value to the characteristic support vector algorithm, generating a video summary, repeatedly performing a scalability process based on summary time information received from the user, and generating a video summary which has a time range desired by the user.

[Claim 13]

An automatic video summarization method comprising:

- (a) receiving a video source to be summarized and a desired summarization time from a user;
- (b) generating importance degrees according to the video's category characteristic and a purpose of desired summary;
 - (c) applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary;
 - (d) outputting the generated video summary to a screen; and
 - (e) storing the generated video summary.

10 (Claim 14)

5

15

The automatic video summarization method of claim 13, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

[Claim 15]

The automatic video summarization method of claim 13, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

[Claim 16]

A recording medium storing a program for an automatic video summarization method, comprising:

20 receiving a video source to be summarized and a desired summarization time from a user;

extracting the video source for each shot;

generating importance degrees according to the video's category characteristic and a purpose of desired summary; and

applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary.

[Claim 17]

The recording medium of claim 16, wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

[Claim 18]

The recording medium of claim 16, wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.